IN THE CLAIMS:

Please cancel claims 1-11, 16-17 and 22-24, amend claim 12, and add claims 25-34 as follows:

1. (cancelled)

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. (cancelled)

7. (cancelled)

8. (cancelled)

9. (cancelled)

10. (cancelled)

11. (cancelled)

12. (Currently Amended): A filtration membrane for separating a contaminant from a feed fluid to produce a product fluid, said membrane comprising:

a porous substrate having a first surface; and

a product fluid-permeable layer cast on said first surface of said porous substrate, said layer comprising the interfacial polymerization reaction product of an aqueous amine solution and an acyl halide solution, wherein

said aqueous amine solution is prepared from a propionic salt, an amine, and water ~~includes an amine, propionic acid and a non-amine base~~, and

said acyl halide solution includes an acyl halide and an organic solvent~~, and wherein the filtration membrane exhibits about 98% to 99.5% magnesium sulfate rejection and fluid fluxes of about 70 to 100 gallons/ft^2 per day for an aqueous magnesium sulfate solution at about 2000 ppm at about 100 psi and about 77° Fahrenheit~~.

13. (Original) The filtration membrane according to claim 12, wherein said layer has pores of a size suitable for nanofiltration.

14. (Original) The filtration membrane according to claim 12, wherein said layer has pores of a size suitable for reverse osmosis filtration.

15. (Previously Amended) The filtration membrane according to claim 12, wherein said amine is one of piperazine and m-poly(phenylenediamine).

16. (cancelled)

17. (cancelled)

18. (Previously Amended) The filtration membrane according to claim 12, wherein said acyl halide is selected from the group consisting of trimesoyl chloride, cyclohexane-1,3,5-tricarbonyl chloride, isophthaloylchloride, and tetraphthaloyl chloride.

19. (Previously Amended) The filtration membrane according to claim 12, wherein said organic solvent is immiscible in water.

20. (Previously Amended) The filtration membrane according to claim 19, wherein said organic solvent is naphtha.

21. (Original) The filtration membrane according to claim 12, wherein said porous substrate is comprised of polysulfone.

22. (cancelled)

23. (cancelled)

24. (cancelled)

25. (New): The filtration membrane of claim 12, wherein the aqueous amine solution is prepared by first mixing the propionic salt with the water and then adding the amine.

26. (New): The filtration membrane of claim 12, wherein the filtration membrane exhibits about 98% to 99.5% magnesium sulfate rejection and fluid fluxes of about 70 to 100 gallons/ft^2 per day for an aqueous magnesium sulfate solution including about 2000 ppm of magnesium sulfate at about 100 psi and about 77° Fahrenheit.

27. (New) A method for producing a filtration membrane, the method comprising:

mixing a propionic salt, an amine, and water to prepare an aqueous amine solution,

applying the aqueous amine solution to a surface of a porous substrate to prepare a wetted substrate, and

contacting the wetted substrate along an interface with an acyl halide solution including an acyl halide and an organic solvent,

wherein polymerization occurs at the interface.

28. (New): The method according to claim 27, wherein the amine is one of piperazine and m-poly(phenylenediamine).

29. (New): The method according to claim 27, wherein the acyl halide is trimesoyl chloride.

30. (New): The method according to claim 27, wherein the organic solvent is naphtha.

31. (New): The method according to claim 27, wherein the porous substrate is comprised of polysulfone.

32. (New): The method according to claim 27, further including drying said membrane after said polymerization has occurred.

33. (New): The method according to claim 27, wherein the propionic salt is mixed with the water prior to mixing in the amine.

34. (New): The method according to claim 27, wherein the filtration membrane exhibits about 98% to 99.5% magnesium sulfate rejection and fluid fluxes of about 70 to 100 gallons/ft^2 per day for an aqueous magnesium sulfate solution including about 2000 ppm of magnesium sulfate at about 100 psi and about 77° Fahrenheit.